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H02G 3/04

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GB 1369103 GB 1186222
GB 1199802 GB 1155668
pp. 33 to 36 & 41 to 42, "Conduit Trunking & Fittings", Marshall-Tufflex

(58) Field of search
H2C

(71) Applicant
Ega Limited (United Kingdom),
St. Asaph, Clwyd, North Wales LL17 0ER

(72) Inventor
David Edwart Layton

(74) Agent and/or Address for Service
Raworth Moss & Cook, 36 Sydenham Road, Croydon
CR0 2EF

(54) Outlet adaptor for cable trunking

(57) An outlet adaptor comprises a moulded plastics cover plate provided with a hollow channel 34 which extends transversely of the longitudinal compartments 18, 20 of trunking 12. An outlet aperture is provided in an end of the adaptor and communicating with the hollow channel and an inlet aperture being provided in the wall of the hollow channel at a position over the longitudinal compartment remote from the outlet aperture. Thus, wire from the compartment remote from the outlet can be led through the inlet aperture and the hollow channel and out through the output aperture while remaining insulated from conductors running along an intermediate longitudinal channel or channels.

FIG.4

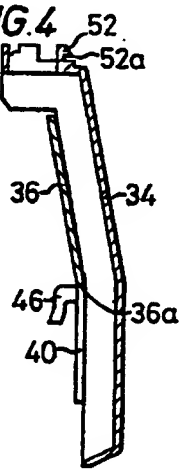

FIG.8

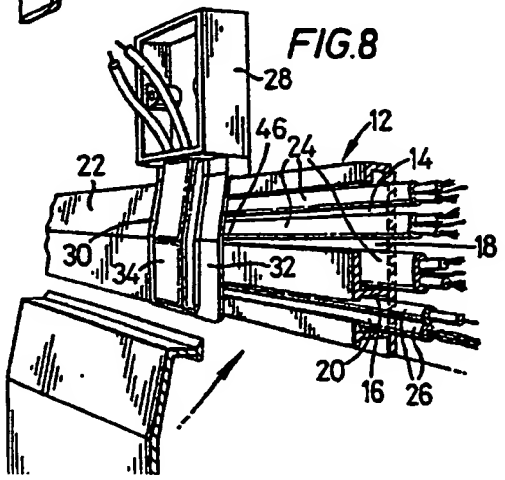

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FIG.1

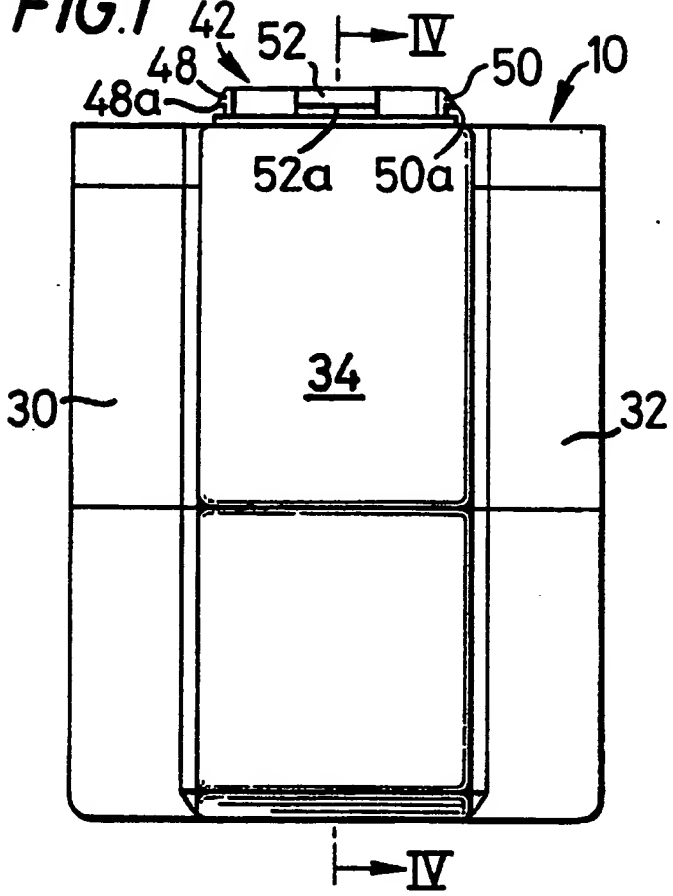

FIG.3

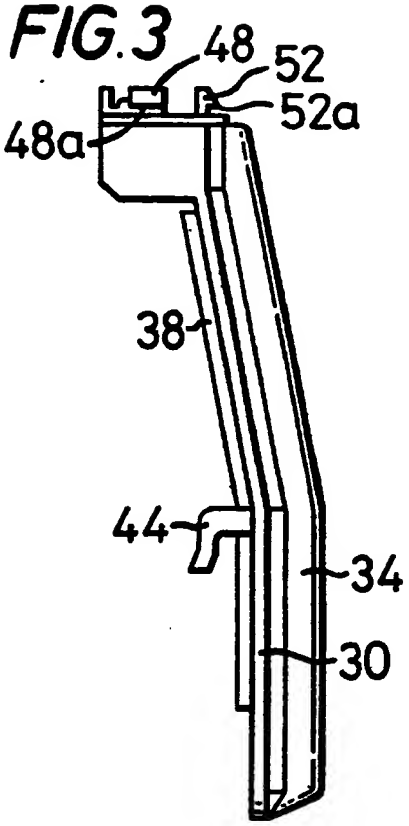

FIG.2

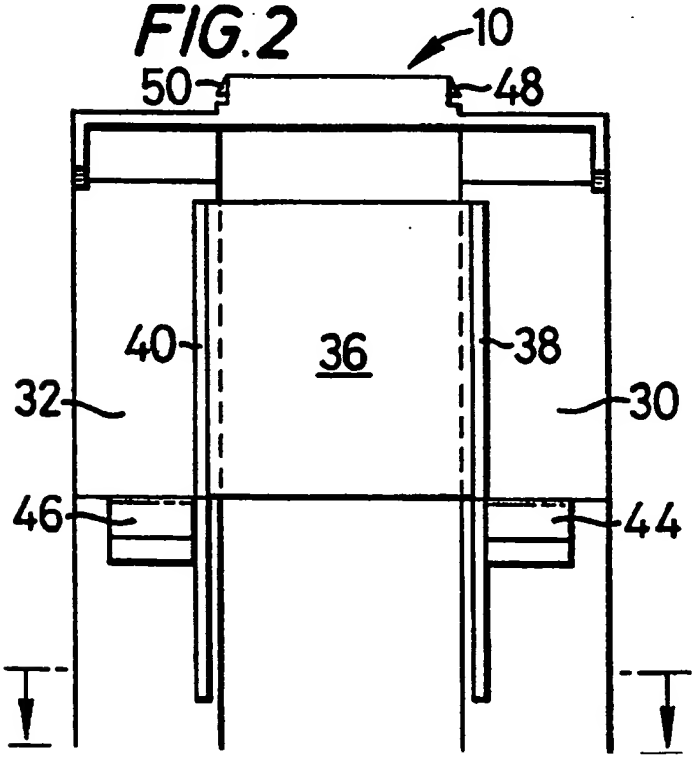

FIG.4

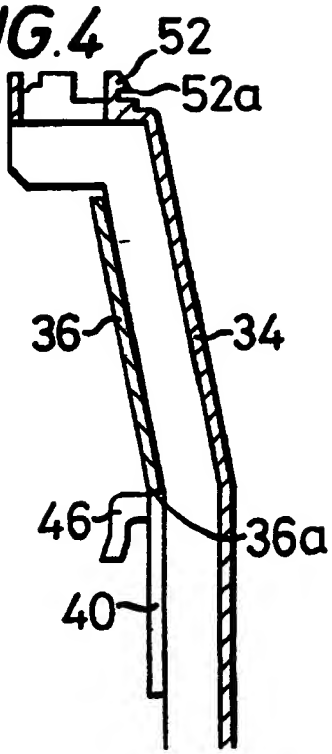

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FIG.5

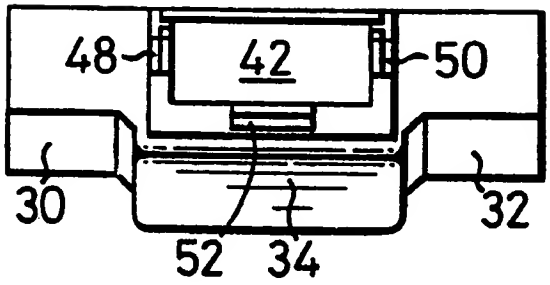


FIG.6

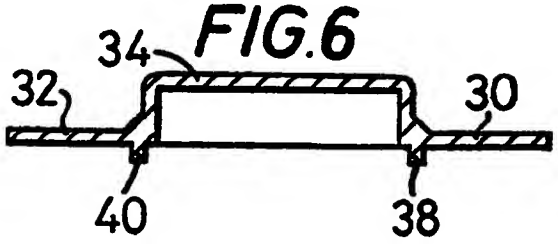


FIG.7

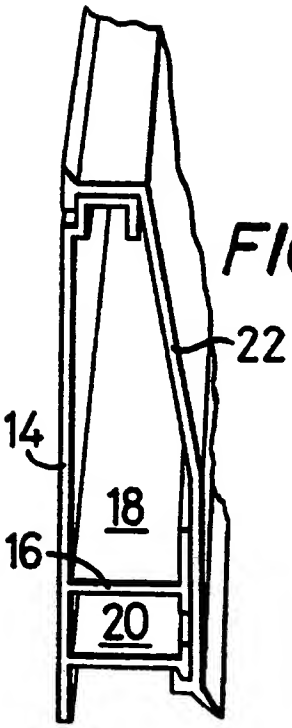
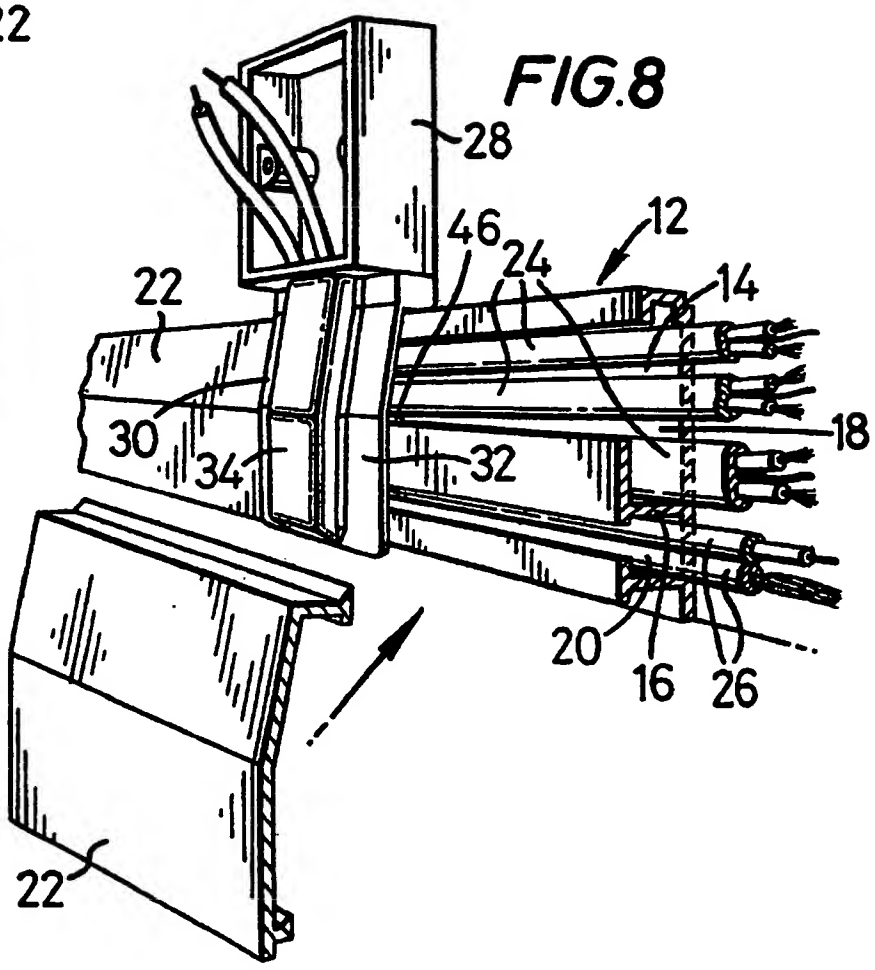


FIG.8



SPECIFICATION

Outlet adaptor for cable trunking

This invention relates to cable trunking and concerns an outlet adaptor for use with trunking having at least two longitudinally extending compartments.

Such trunking may comprise an elongate channel member having an internal wall member or members extending from its base wall to divide the channel member into two or more channels. An elongate cover member, which can be secured over the open end of the channel member, is provided to close the channel. Thus, an electrical conductor in one channel, or compartment, is electrically and physically isolated from a conductor in another channel.

In use, it is necessary to connect the electrical conductors in the various compartments to appropriate outlets and this entails making a spur connection, for example, from the conductors in a compartment and running the spur connection transversely of the channel member to an outlet.

It is important that such electrical conductors arranged transversely of the channel members are electrically isolated from a conductor in the other compartment or compartments. This is particularly important when the conductors have different functions. For example, one may be an electrical power line for connection via appropriate outlets to power sockets and another may be a telephone cable for connection via different outlets to a telephone socket or terminal block for ultimate connection to a telephone set.

According to the invention there is provided an outlet adaptor for use with trunking comprising a channel member having at least two longitudinally extending compartments closed by an elongate cover member, the adaptor comprising a cover plate member arranged to cover the channel member at a selected cable outlet position, the adaptor being provided with a hollow channel which, in use, extends transversely of the longitudinal compartments, an outlet aperture being provided in an end of the adaptor and communicating with the hollow channel and an inlet aperture being provided in the wall of the hollow channel at a position over the longitudinal compartment remote from the outlet aperture. Thus, wire from the compartment remote from the outlet can be led through the inlet aperture and the hollow channel and out through the output aperture while remaining insulated from conductors running along an intermediate longitudinal channel or channels.

Preferably, the adaptor is made of a moulded plastics material formed with a channel open on its internal surface which is closed by a cover member. The cover member may be clipped in position by providing suitable engagement means on the cover and adaptor or may be secured in position by other means, for example by an adhesive.

trunking whenever a cable outlet is required.

The invention will now be described by way of example with reference to the accompanying drawings, in which:

FIG. 1 shows an external view of one embodiment of an outlet adaptor according to the invention suitable for use with skirting trunking;

FIG. 2 shows an internal view of the adaptor of Fig. 1;

FIG. 3 is an end elevation of the adaptor of Fig. 1;

FIG. 4 is a cross-sectional view of the adaptor taken on the line IV—IV of Fig. 1;

FIG. 5 is a plan view of the adaptor of Fig. 1;

FIG. 6 is a cross-sectional view of the adaptor taken on the line VI—VI of Fig. 2;

FIG. 7 is an end perspective view of trunking for use with the invention;

FIG. 8 is a perspective view of skirting trunking showing the channel member, a section of the cover member and the adaptor of Fig. 1 in position.

Referring to the drawings there is shown an outlet adapator 10 for use with skirting trunking 12.

The trunking 12 comprises an elongate channel member 14 having an external wall 16 defining two longitudinally extending compartments 18, 20. An elongate cover member 22 may be secured by snap engagement for example, to the channel member to provide an enclosed trunking for electrical conductors 24, 26 laid in compartments 18, 20 respectively. The conductors 24 may form a power line which may be connected to outlet sockets at predetermined positions along the trunking. The conductors 26 may form a telephone cable which may be connected to outlet sockets or terminal junction boxes or other predetermined positions along the trunking 12.

Clearly, for a connection to be made between the lower (telephone) cable 26 to an outlet socket 28 above the skirting trunking 12, the electrical conductors will have to extend upwardly and across the conductors 24. It is obviously important that the conductors 26 be maintained insulated at all times from the conductors 24 and this is achieved by the adaptor 10 according to the invention.

The adaptor 10 is of moulded plastics material having side wall members 30 and 32 having a profile similar to that of the cover member 22. The central portion of the adaptor 10 is formed as a hollow channel 34. When the adaptor 10 is formed, the channel 34 may be open on the internal surface of the adaptor and closed along substantially its length from the top (in Fig. 2) to near the bottom by means of a plastics cover member 36 which fits into retaining walls 38, 40 formed along each side of the channel 34. The cover 36 may be a friction or snap fit in the walls 38, 40 or it may be secured thereto by an adhesive.

Alternatively, the cover could extend to the bottom of the channel 34 and be provided with a conventional "knock-out" portion to provide access to the channel. In either case electrical conductors can be pushed through the aperture defined in part by terminal edge 36a up the channel 34 and out of an outlet aperture 42.

Thus, if a telephone outlet is required at the position shown in Fig. 8, a LOOP-connection is made from the cable 26 and the connection wires led up through the channel 34 and out of the outlet 42 where they are connected appropriately to a telephone socket in box 28. By this means the outlet telephone cable 26 is at all times isolated from the power cable 24.

To secure the adaptor 10 to the channel member 14 it is provided with two substantially L-shaped clips 44, 46 which fit over a lip formed on the wall member 16. In addition, the outlet aperture 42 is provided with tabs 48, 50, 52 which extend into a corresponding aperture in the socket box 28. The tabs are provided with outwardly turned ends 48*a*, 50*a*, 52*a* respectively and are dimensioned to provide a snap-fit around the edges of the aperture in the socket box 28 to hold them securely together. The socket box 28 is then secured in position to the wall as by screws for example. The adaptor 10 is thus firmly secured to the trunking 12 and socket 28. Other means can of course be provided to secure the adaptor to the trunking and, if necessary, to the socket. Cover members 22 are fitted over the channel member 14 prior to the fitting of the adaptor 10 with a gap therebetween just less than the width of the adaptor 10. The adaptor 10 then covers the ends of adjacent cover members 22 to present a neat external appearance. Thus, in Fig. 8, the cover member on the right in the drawing would normally have been in place before the adaptor 10 was fitted but is shown spaced from the channel member for ease of understanding.

To provide an outlet for a power cable to a power socket at a position spaced along the trunking from a telephone socket, a "knock-out" portion can be provided in the cover 36 at a position facing the upper channel 18 so that a connection may be taken from the conductors 24 by way of the "knock-out" aperture, the channel 34 and the outlet aperture 42 to a power socket which is then secured to the adaptor 10 by tabs 48, 50, 52 as described above.

Thus, there has been described a one-piece adaptor for use with trunking arranged to accommodate a plurality of electrical conductors which are electrically isolated from each other at all times, even when connections are led out transversely of the trunking to an outlet socket.

CLAIMS

1. An outlet for use with trunking comprising a channel member having at least two longitudinally extending compartments closed by an elongate cover member, the adaptor comprising a cover plate member arranged to cover the channel member at a selected cable outlet position, the adaptor being provided with a hollow channel which, in use, extends transversely of the longitudinal compartments, an outlet aperture in an end of the adaptor and communicating with the hollow channel and an inlet aperture in the wall of the hollow channel at a position which, in use, would be over the longitudinal compartment remote from the outlet aperture.

2. An outlet adaptor according to Claim 1 of a moulded plastics material formed with a channel open on its internal surface which is closed by a cover member.

3. An outlet adaptor according to Claim 2 in which the cover member is arranged to be clipped in position by providing engagement means on the cover and adaptor.

4. An outlet adaptor according to Claim 2, in which the cover member is secured in position by an adhesive.

5. An outlet adaptor according to Claim 2, 3 or 4, in which the cover member extends over the longitudinal compartment intermediate the outlet aperture and the remote compartment and terminates at a position which, in use, is at the junction of the intermediate and remote compartments, or is over the remote compartment.

6. An outlet aperture according to Claim 2, 3 or 4, in which the cover member is provided with a weakened knock-out portion which can be removed to provide the inlet aperture.

7. An outlet adaptor according to any one of the preceding claims for use with a channel member having an elongate wall member to define said compartments, the adaptor being provided with at least one engagement member arranged to engage said elongate wall to secure the adaptor to the channel member.

8. An outlet adaptor according to any one of the preceding Claims, in which the outlet aperture is provided with engagement means arranged to engage a housing for electrical components to be connected to electrical wiring arranged in a compartment.

9. An outlet adaptor substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

10. Electrical trunking provided with an outlet adaptor according to any one of the preceding Claims.

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